U.S. Serial No. 10/798,855 Second Preliminary Amendment

IN THE SPECIFICATION:

Please amend the Specification as follows.

Page 12, please amend the paragraph beginning on line 4:

Figs. 1 and 2 show the influence of the Mo and Cu content on the sulfide stress cracking resistance in the corrosive environments of pH 3.75 and pH 4.0, respectively. The test material used was 0.04% C-11% Cr-2% Ni-Cu-Mo steel, as described above. An actual yield stress was added to the respective four-point bend test with smooth specimen at $[[25\Box]]$ 25°C under test conditions of 300 Pa (0.003 bar) H₂S + 3MPa (30 bar) CO₂, 5% NaCl and pH 3.75 or pH 4.0, and the generation of cracks after 336 hours in the test was inspected. Marks \circ and \circ in these diagrams indicate the existence and non-existence of sulfide stress cracking, respectively.

Page 12, please amend the paragraph beginning on line 13:

As shown in Fig. 1, in order to obtain excellent sulfide stress cracking resistance in a corrosive environment of not less than pH 3.75, it is necessary to satisfy the above formula (b); $0.55\% \square \text{Mo} + \text{Cu}/4 \square 5\% \ 0.55\% \le \text{Mo} + \text{Cu}/4 \le 5\%$. As shown in Fig. 2, inorder to obtain excellent sulfide stress cracking resistance in an environment of not less than pH 4.0, it is necessary to satisfy the above formula (a); $0.2\% \square \text{Mo} + \text{Cu}/4 \square 5\% \ 0.2\% \le \text{Mo} + \text{Cu}/4 \le 5\%$. In this case, the relation of $\frac{\text{Mo} + \text{Cu}/4 \square 5\%}{\text{Mo} + \text{Cu}/4 \le 5\%}$ results from the saturation of the effect in which the copper sulfide and molybdenum sulfide stabilize the chromium oxide film.

Page 17, please amend the paragraph beginning on line 1:

The block thus prepared was heated at $[[1,250\square]]$ 1,250°C for 1 hr and then hot rolled to form a steel plate having a 15 mm thickness. Thereafter, a test material was prepared by applying one of various heat treatments to the steel plate. The process employed is a combination of treatments, AC, AC + LT, AC + HT, WQ, WQ + LT and WQ + HT, as shown in Tables 2 and 3, where the content of treatment in each symbol is as follows:

AC: Air cooled after hot rolling.

WQ: Water cooled after hot rolling.

LT: Air cooled after heating at $[250\square]$ 250°C for 30 min.

HT: Air cooled after heating at [[600□]] 600°C for 30 min.

Page 20, please amend the paragraph beginning on line 14:

Next, in the test of the sulfide stress cracking resistance, a four-point bend test with smooth specimen (10 mm width \times 2 mm thickness \times 75 mm length) was used as a test piece and stress of 100% actual yield strength was added thereto. In this case, the test environment was controlled under the conditions: [[25 \square]] 25°C, 300 Pa (0.003 bar) H₂S + 3MPa (30 bar) CO₂, 5% NaCl, pH 3.75 or pH 4.0 and a test time of 336 hours. The test result was evaluated by observing cracks with the naked eye. The non-existence and existence of the sulfide stress cracking are indicated by \circ and \times , respectively.

Page 20, please amend the paragraph beginning on line 22:

Moreover, in the test of the resistance to corrosive wear, a coupon specimen (20 mm width \times 2 mm thickness \times 30 mm length) was used as a test piece. A test solution including 300 Pa (0.003 bar) H₂S + 100 kPa (1 bar) CO₂, 5% NaCl under a corrosive environment of pH 3.75 or pH 4.0 was splayed at a flow rate of 50 m/s and at [[25 \square]] 25°C for 336 hours from a jet nozzle to the surface of the test piece. The test result was evaluated by observing the corrosive wears with the naked eye. The non-existence and existence of the corrosive wear are indicated by \circ and \times , respectively.

Page 21, please amend the paragraph beginning on line 1:

Finally, in the test of the localized corrosion resistance, a coupon specimen (20 mm width \times 2 mm thickness \times 50 mm length) was used as a test piece. In this case, the test environment was controlled under the conditions: [[150 \square]] 150°C, 300 Pa (0.003 bar) H₂S + 3MPa (30 bar) CO₂, 25% NaCl, pH 3.75 or pH 4.0 and a test time of 336 hours. The test result was evaluated from the localized corrosion observed with the naked eye. The non-existence and existence of the localized corrosion are indicated by \circ and \times , respectively. All of the test results and the evaluation results are listed in Tables 2 and 3.